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G. H. CONRAD, SR
CUSHIONED ARCH SUPPORT

2,765,545

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Fig. 1

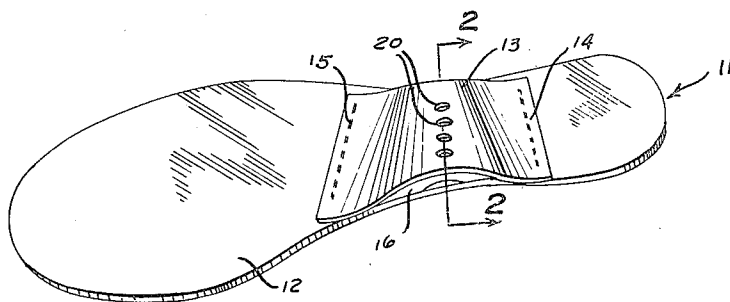


Fig. 2

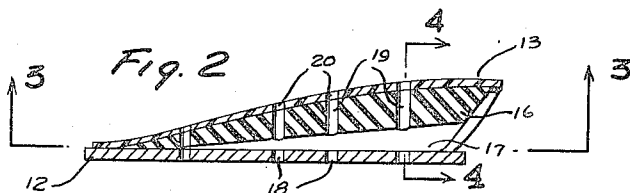


Fig. 3

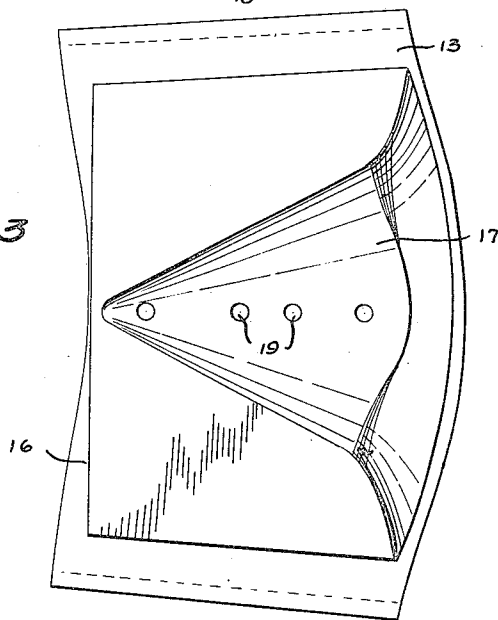
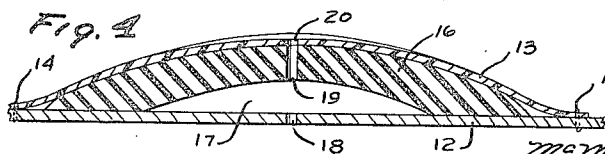


Fig. 4



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CUSHIONED ARCH SUPPORT

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2 Claims. (Cl. 36—3)

This invention relates to improvements in shoes, and more particularly to an improved arch supporting device adapted for use in a shoe.

A main object of the invention is to provide a novel and improved arch supporting device for insertion in a shoe, said device being simple in construction, being compact in size, and providing improved comfort and support for the arch of the foot.

A further object of the invention is to provide an improved cushioned arch supporting device adapted to be inserted in a shoe, said device being inexpensive to manufacture, being durable in construction, and providing air ventilation adjacent the arch of the foot to improve the wearing comfort of the shoe and the flexibility thereof.

Further objects and advantages of the invention will become apparent from the following description and claims, and from the accompanying drawings, wherein:

Figure 1 is a perspective view of an improved arch supporting device constructed in accordance with the present invention.

Figure 2 is an enlarged transverse vertical cross sectional view taken on the line 2—2 of Figure 1.

Figure 3 is a cross sectional detail view taken on the line 3—3, showing the arched pad and arched retaining member for said pad in bottom plan view.

Figure 4 is a cross sectional detail view taken on the line 4—4 of Figure 2.

Referring to the drawings, the illustrated arch supporting device is designated generally at 11 and comprises an insole member 12 of suitable sheet material, such as leather or the like, shaped to fit inside a shoe. Designated at 13 is an arched retaining member of flexible sheet material which is generally rectangular in shape and which is secured at its opposite ends, as indicated at 14 and 15 to the insole 12 at opposite sides of the portion of the insole underlying the arch of a human foot when the foot is placed on the insole member 12. The respective side marginal portions of the arched retaining member 13 are secured to the insole member 12 in any suitable manner, as by stitching or the like, and when thus secured, the retaining member 13 defines a cavity therebeneath of laterally outwardly tapering width. Designated at 16 is an arched pad of resilient deformable material, such as rubber or the like which is disposed in the cavity between the retaining member 13 and the insole member 12, the end edges of the pad 16 being engaged with the under surfaces of the side marginal portions of the arched retaining member 13 and being held against spreading thereby. The arched pad 16 is formed with a cavity therebeneath, shown at 17, which tapers outwardly in width, as shown in Figure 3, said pad 16 tapering inwardly in thickness, as is clearly shown in Figure 2.

The insole member 12, the pad 16 and the retaining member 13 are formed with registering apertures, shown respectively at 18, 19 and 20 which are arranged in transverse alignment across the intermediate portion of the arch supporting device, as shown in Figure 2, said

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apertures establishing communication between the top of the arched retaining member 13 and the cavity 17 beneath the arched pad 16. Thus, a free circulation of air is provided from beneath the arched pad 16 to the area above the arched retaining member 13, whereby the wearing comfort of the device is improved. The perforations 19 in the pad 16 also make the upper portion of the pad more resilient and improve its flexibility, whereby a springier action is obtained than would be obtained if the perforations were omitted.

In using the device, the support 11 is inserted in the shoe, thus positioning the elements 16 and 13 in the proper location to support the arch of a human foot. The device is comfortable to use, inasmuch as the arch is resiliently supported and inasmuch as a substantial circulation of air is provided by the flexure of the supporting elements, as above described.

While a specific embodiment of an improved arch supporting device has been disclosed in the foregoing description, it will be understood that various modifications within the spirit of the invention may occur to those skilled in the art. Therefore, it is intended that no limitations be placed on the invention except as defined by the scope of the appended claims.

What is claimed is:

1. In an arch support, a shoe innersole having an upper surface, an intermediate portion and laterally outward and inward edges, an arched flexible sheet overlying the upper surface of said intermediate portion, said sheet being secured to the innersole at the opposite ends of the sheet, in a manner to provide a pocket extending across the innersole and reaching to the upper surface of the innersole, a resilient and compressible pad engaged in said pocket, said pad tapering in thickness from the inward edge of the innersole to the laterally outward edge of the innersole, said pad having end edges and an underside, and a cavity in said underside and extending between the inner and outward edges of the innersole, said cavity tapering in width and in height from the inward edge of the innersole to the outward edge of the innersole, said innersole, said pad, and said sheet having registered ventilation holes.

2. In an arch support, a shoe innersole having an upper surface, an intermediate portion and laterally outward and inward edges, an arched flexible sheet overlying the upper surface of said intermediate portion, said sheet being secured to the innersole at the opposite ends of the sheet, in a manner to provide a pocket extending across the innersole and reaching to the upper surface of the innersole, a resilient and compressible pad engaged in said pocket, said pad tapering in thickness from the inward edge of the innersole to the laterally outward edge of the innersole, said pad having end edges and an underside, and a cavity in said underside and extending between the inner and outward edges of the innersole, said cavity tapering in width and in height from the inward edge of the innersole to the outward edge of the innersole, said innersole, said pad, and said sheet having registered ventilation holes, said ventilation holes being in a single row extending across the support and spaced at equal distances from the end edges of the pad.

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